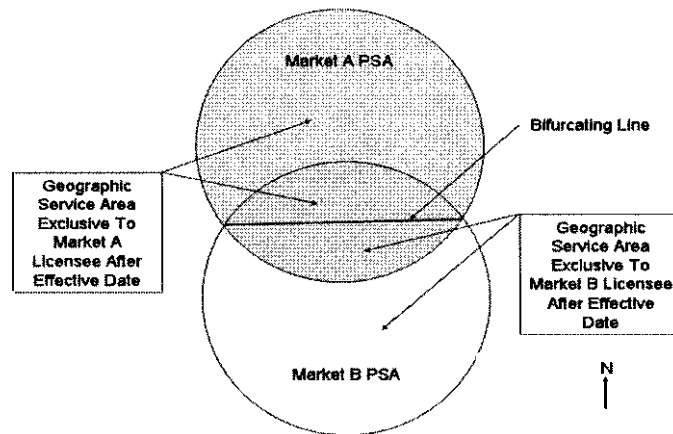


**ELIMINATING PROTECTED SERVICE AREA OVERLAPS IN DETERMINING
THE GEOGRAPHIC SERVICE AREA**

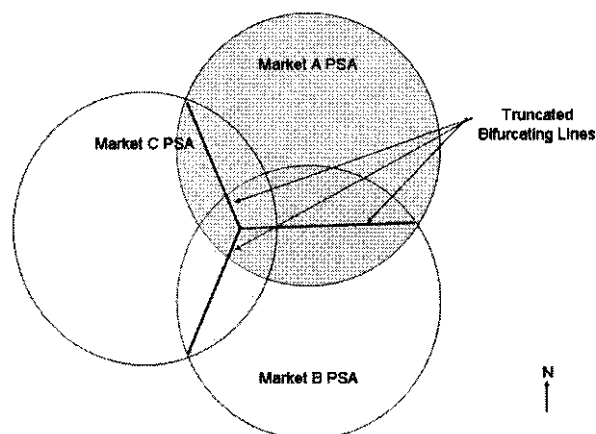
In the accompanying white paper, the Wireless Communications Association International, Inc. (“WCA”), the National ITFS Association (“NIA”) and the Catholic Television Network (“CTN”) are proposing that the Commission modify the rules applicable to Multipoint Distribution Service (“MDS”) and Instructional Television Fixed Service (“ITFS”) licensees in the 2150-2162 MHz and the 2500-2690 MHz bands to facilitate the deployment of the next generation of fixed, portable and mobile communications systems. As is discussed in detail in the white paper, one component of their proposal calls for eliminating the hybrid system currently in place under which licensees have the functional equivalent of a geographic service area, but are nonetheless required to comply with a site-by-site licensing system. The white paper proposes that the existing protected service area concept be replaced by a Geographic Service Area (“GSA”), which will be an area in which the licensee will have exclusive use of its assigned frequencies. In the case of an MDS BTA authorization holder, WCA, NIA and CTN are proposing that the boundaries of the GSA be exactly the same as its current protected service area under Section 21.933(a). In the case of an incumbent MDS, a commercial ITFS licensee or an ITFS licensee (including grandfathered E Group and F Group licensees), it is proposed that the GSA be its current protected service area under Section 21.902(d) or 74.903(d). However, as explained in the white paper, it is necessary to modify the areas of incumbents somewhat to eliminate overlaps and thus provide the desired exclusivity. This Appendix A has been prepared to set forth specific rules for dividing any overlap area among licensees’ protected service areas.

The general method for dividing the overlap area is to allocate to each licensee the portion of the overlap area that is on that licensee’s side of the overlap with each other licensee. This is generally accomplished by drawing a chord between the intersections of each pair of overlapping geographic areas, bifurcating the overlap. In the simplest case, where there are just two incumbent MDS or ITFS licensees with overlapping cochannel protected service areas, the overlap area would be bifurcated by drawing this straight line beginning and ending at the two points where the *two* protected service areas currently intersect. This is illustrated in the Figure below:



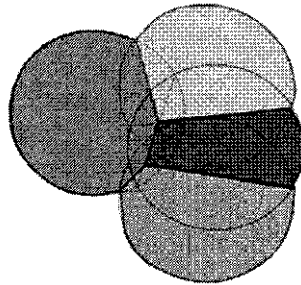
Thus, following the effective date of the new rules, the licensee in Market **A** and the licensee in Market **B** would each have an exclusive right to the spectrum in issue in its **GSA**, with the common border between their GSAs being the bifurcating line.

In situations where three protected service areas overlap, the process of allocating the overlap area becomes slightly more complex. First, it is necessary to draw three bifurcating lines – one with respect to each of the three overlaps. Then, those lines must be truncated at the point of their intersection. To do so, first identify the one end point of each line that is both at the intersection of two protected service area boundaries and that is within the third protected service area. Then, truncate the bifurcating line by eliminating that portion of the bifurcating line that is between that one end point and the intersection of the three bifurcating lines. This is illustrated by the following Figure:



Thus, each of the three licensees would have an exclusive right to the spectrum in issue in its **GSA**, with the boundary for each licensee defined, within the overlap area, as the composite of the two bifurcating links through its overlap with the other two licensees.

In those rare situations with four or more overlapping protected service areas, the process of allocating the overlap area among the various licensees in accordance with this principle becomes slightly more complex. **As** in the case with three overlapping licensees, it is first necessary to draw a bifurcating line dividing each possible pair of overlapping protected service area circles. The boundary for any of the GSAs within the overlap areas is then defined as the composite of the bifurcating lines connecting its points of intersection with each other circle. This is illustrated by the following figure:



THE MARKET-BY-MARKET TRANSITION TO THE NEW MDS/ITFS BANDPLAN

In the accompanying white paper, the Wireless Communications Association International, Inc. (“WCA”), the National ITFS Association (“NIA”) and the Catholic Television Network (“CTN”) are proposing that the Commission modify the bandplan that has been in place for the 2500-2690 MHz (“2.5 GHz”) band since the early 1960s’ to better accommodate those Multipoint Distribution Service (“MDS”) and Instructional Television Service (“ITFS”) licensees and system operators that desire to deploy next generation fixed, portable and mobile communications systems. As is discussed in detail in the white paper, their proposal contemplates a deinterleaving of the current channel plan and the establishment of several discrete segments of the 2.5 GHz band, one for traditional one-way high-power, high-site transmissions and the others for emerging two-way cellularized operations, with different segments subject to different licensing, operational and technical rules appropriate to the intended uses.

The WCA/NIA/CTN proposal raises a fundamental question -- “how do we get there from here?” WCA, NIA and CTN, in consultation with MDS and ITFS licensees, system operators, equipment vendors and engineering experts, have crafted a transitional mechanism that is designed to accomplish a series of fundamental goals: (1) promoting the expeditious deployment of advanced technology for commercial and educational applications; (2) maintaining and enhancing the educational use of the 2.5 GHz band by ITFS licensees; (3) minimizing up-front expenditures by transitioning to the new bandplan on a market-by-market basis only at such time as a system operator is prepared to deploy a new service or materially modify an existing one; (4) shifting certain costs of a transition from affected ITFS licensees to the proponent of that transition, while requiring partial reimbursement of those costs by others who subsequently benefit; (5) avoiding opportunities for unreasonable licensees to delay the transition unless paid “greenmail”; and (6) allowing continued operation of the wireless cable multichannel video programming distribution (“MVPD”) systems that are providing a competitive alternative to cable and DBS.

I. A SUMMARY OF THE TRANSITION PROCESS

WCA, NIA and CTN are proposing that MDS and ITFS licensees continue to operate pursuant to the current bandplan (subject to technical and operational rules substantially similar to the current Part 21 and Part 74 rules) until an MDS or ITFS licensee or a person leasing capacity from an MDS or ITFS licensee and acting pursuant to its contractual rights (the “Proponent”) triggers a transition process. To promote such transitions, after the date the new

¹ *Amendment of Parts 2 and 74 of the Commission's Rules and Regulations to establish a New Class of Educational Television Station of the Transmission of Instructional and Cultural Material to Multiple Receiving Locations on Channels in the 1990-2110 Mc/S or 2500-2690 Mc/S Frequency Band*, FCC 63-722 (rel. July 30, 1963), on recon 2 P&F Rad. Reg.2d 1619 (1964); *Amendment of Sec. 74.902 of the Rules Governing Instructional Television Fixed Stations to Assign Alternate Channels to Stations Operating in the Some Area Instead of Every Sixth Channel*, 2 P&F Rad. Reg.2d 1615 (1964).

rules become effective (“New Bandplan Rules Effective Date”), an MDS or ITFS licensee should only be permitted, absent a waiver, to modify facilities licensed under the current rules or add new facilities within its **GSA** under the limited circumstances set forth in note 2 below until the licensee has been transitioned to the new bandplan.² Each transition process will require participation by all MDS and ITFS licensees that must transition from the existing bandplan to the new bandplan in order to achieve the objectives of the new bandplan (*i.e.* avoiding interference to cellularized operations from high-power, high-site stations and providing a safe haven in which downstream ITFS video programming and data transmissions can continue without interference from consumer-installed fixed, portable and mobile cellularized operations). The goals of the process in any given case are to identify those licensees that must transition to the new bandplan, provide an opportunity for those licensees to agree on any deviations from the default transition provisions proposed by WCA, NIA and CTN, and to work through the logistical details of the transition.

The new bandplan and the transitional process have been designed to provide each licensee with the same quantity of spectrum it has under the current interleaved bandplan, but to distribute that spectrum in a contiguous manner among different segments of the new bandplan.³

² Prior to the New Bandplan Rules Effective Date, MDS and ITFS licensees should be permitted to modify any facility licensed under current rules or add new facilities within its PSA. After the New Bandplan Rules Effective Date, downstream facility modifications should be permitted by a MDS or ITFS licensee without triggering the conversion process when either: (i) the effect of those modifications does not increase the signal level generated by the station within the geographic service area (“GSA”) (which is discussed in more detail in Appendix A to the white paper) of any cochannel or adjacent channel station to which there is line-of-sight; or (ii) the licensee of any station that will suffer an increase in undesired signal level within its GSA consents. There is a significant risk that modifications to a pre-transition high-power, high site station operating in the 2500-2566 MHz or 2620-2686 MHz bands might cause cochannel interference to a post-transition LBS or UBS base station in a market located a significant distance away. Thus, a pre-transition licensee seeking to invoke the exception to the general ban on modifications should be required to demonstrate that the modification will not result in an increase in its signal level measured at any height up 250 meters (the height of a tall cellular base station) above ground level within the GSA of a cochannel or adjacent channel licensee. WCA, NIA and CTN recognize that this proposed restriction will be quite limiting, but it is necessary to assure that the cellularized systems operating in the LBS and UBS under the new bandplan are not interfered with by cochannel high-power, high-site stations. Although the new rule on this issue should be strict, WCA, NIA and CTN would not object to the Commission granting waivers on a case-by-case basis where it can be demonstrated that licensees who have transitioned to the new bandplan in adjacent markets will not be adversely impacted by the proposed modifications.

³ Under the new bandplan, all licensees of MDS channels E3, E4, F3, F4, H1, H2 and H3 will regain the 125 kHz I channels that they had previously held, but which were reallocated from MDS to the Private Operational Fixed Service (“OFS”) subject to the grandfathering of pre-existing stations. *See Amendment of Parts 21, 43, 74, 78, and 94 of the Commission’s Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service*, 6 FCC Rcd 6792 (1991). The 1 channels taken from MDS licensees were never licensed as OFS channels, presumably because they are too narrow to be usable by themselves. Returning them to their original licensees, who can accumulate them with other I channels, is the most likely method to bring these channels into use.

The new bandplan is illustrated in Attachment 1. Unless the affected licensees agree otherwise prior to or during the Transition Planning Period (discussed below in Section III.C), the typical licensee who today operates on four interleaved 6 MHz channels and four interleaved 125 kHz I channels (totaling 24.5 MHz) will be licensed after the transition to operate on 16.5 MHz of contiguous spectrum in either the Lower Band Segment (“LBS”) or the Upper Band Segment (“UBS”), 6 MHz of spectrum in the Mid-Band Segment (“MBS”), 500 kHz of contiguous spectrum in the I Band and 1.5 MHz of contiguous spectrum in one of the Transitional Bands (totaling the same 24.5 MHz it was licensed for prior to the transition).⁴ The specific frequencies to which each licensee will be assigned absent agreement are set forth in Attachment 1.⁵

As is discussed in detail in the white paper, post-transition operations within each segment of the new bandplan should be governed by rules specifically tailored to that segment. The MBS rules should be based on the current ITFS regulatory regime and designed to permit and protect downstream high-power, high-site video and data operations. Operations should be restricted to one-way, downstream services, although the new rules should allow an MBS channel to be used for two-way communications pursuant to the rules generally applicable to the LBS and the UBS where the licensee planning upstream use secures consent: (i) from every MBS licensee with a transition impact area (“TIA”)(which is discussed *infra* at note 34) that overlaps or is within six miles of the licensee’s own GSA); and (ii) from every cochannel MBS licensee with GSA center coordinates that are within 100 miles of the GSA center coordinates of the licensee proposing to operate *upstream*.⁶ The LBS and UBS rules generally will be based on the technical rules applied by the Wireless Telecommunications Bureau to other flexible use services and will be far more amenable to two-way cellularized systems than the MBS rules. The I Channel and Transitional Band rules will put a premium on protecting LBS, MBS and UBS operations from interference, while allowing a variety of compatible uses. These post-transition rules are addressed in detail in the white paper.⁷

⁴Although the channels in the LBS and the UBS will be 5.5 MHz wide rather than 6 MHz wide and the channels in the Transition Band will be 1.5 MHz wide, no change in the current rules affording licensees the flexibility to subchannelize and superchannelize is proposed. Therefore, even after the transition, licensees can continue to utilize 6 MHz channels in the LBS, the UBS and the Transition Bands, provided that appropriate consents are achieved. What this means, for example, is that a wireless cable system that today utilizes all 31 6 MHz channels in the 2.5 MHz band can continue to do so if the licensees consent, so long as it complies with the various technical and operational rules applicable to the various band segments.

⁵ The assignment of channels where a given channel group is today licensed to two or more parties is discussed *infra* at Section III.C.4.

⁶ For purposes of this rule, a BTA authorization holder should be permitted to adopt a geographic service area smaller than the BTA in accordance with the discussion *infra* at note 34.

⁷ In connection with the transition to the new bandplan, the Commission should eliminate the current policy of restricting the technical modifications that a so-called “grandfathered E or F Group ITFS licensee is permitted to make. That policy was first adopted in 1983, and was designed to minimize the adverse interference impact that ITFS licensees on the E and F Group channels granted prior to the reallocation of those channels to MDS would

Each of the market-by-market transition processes will have four fundamental phases: (i) identifying the MDS and ITFS licensees that will have to participate in a given transition; (ii) planning the transition; (iii) physically shifting educational ITFS programming tracks to spectrum in the MBS and outfitting eligible ITFS receive sites with improved downconverters designed to limit the reception of signals from outside the MBS;⁸ and (iv) terminating existing operations in transitioned markets that do not comport with the new rules.⁹ Once a license has been transitioned to the new bandplan, the licensee will then hold the spectrum called for by the Transition Plan (with Attachment 1 providing the defaults) and will then be subject to the rules applicable to various segments of the new bandplan. The remainder of this document will address the transitional process in more depth.

have upon MDS lottery winners. *Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service*, 94 F.C.C.2d 1203, 1206-07 (1986). The technical rules WCA is proposing for operations under the new bandplan are amply protective of MDS and ITFS licensees alike, and there is no longer any need to impose special restrictions on E and F Group licensees.

⁸ This is not to suggest that the MBS is restricted to use for transmitting one-way ITFS video programming. Indeed, the MDS E and F Group channels will each be assigned a channel in the MBS. It is anticipated that MDS and ITFS licensees alike will use their MBS spectrum for a variety of non-video high-power, high-site applications, including for downstream use in first generation wireless broadband systems.

⁹ It is essential for the Commission to recognize that in the process of transitioning the nation to the new bandplan, some licensees will be required to cease their current service offerings before they are in a position to launch new services under the new bandplan. Indeed, some have done so already in anticipation of converting to advanced wireless technologies. As is discussed in more detail *infra* at Section III.A, it may be necessary for licensees in one market to cease high-power, high-site operations in the LBS and UBS in order to avoid cochannel interference to next generation operations in markets quite some distance away. While WCA, NIA and CTN believe that this reduction of service is a necessary price to pay for transitioning the 2.5 GHz to a bandplan and rules capable of supporting widespread deployment of advanced services, the Commission cannot jeopardize the licenses of those who are transitioned and therefore must cease current operations. Consistent with Section 27.14 of the rules, the only "build-out" requirement should be that a licensee demonstrate substantial service at the expiration of its license. Thus, licensees who have yet to construct facilities should not have their authorizations jeopardized by a failure to construct during this transitional period in the evolution of MDS and ITFS. Rather, as addressed in the white paper, a licensee's performance should be judged under the "substantial service" standard. Moreover, if the Commission chooses to apply Section 21.66 or some similar rule regarding the discontinuance, reduction or impairment of existing service, the Commission should clarify the application of that rule to the MDS/ITFS transition process. Specifically, WCA, NIA and CTN propose that the Commission issue a blanket waiver of that rule for all MDS and ITFS licensees, require the filing of a notice when service is commenced by a transitioned licensee operating under the new bandplan and thereafter apply the rule to that licensee in accordance with its terms. In this manner, MDS and ITFS licensees will be able to smooth the transition process without fear that licenses will be jeopardized as stations cease operations to facilitate the transition. In addition, the Commission should clarify that when a licensed MDS or ITFS channel is used as a guardband rather than for transmissions, no filings are required to safeguard the license for the channel being utilized as a guardband. In such a case, the provisions of the rules regarding the cancellation or forfeiture of the license should be inapplicable for so long as the channel is used as a guardband.

II. THE PROPONENT'S PRIMARY OBLIGATIONS

As is discussed in more detail in the accompanying white paper, the new bandplan has been designed to segregate traditional one-way, high-power, high-site video and data distribution services in the MBS, separating them from the two-way cellularized systems that will operate in the LBS and the UBS. This segregation is intended, among other things, to protect those ITFS receive sites that will continue to receive high-power, high-site video and data services against interference from the consumer-installed fixed, portable and mobile subscriber units that will be deployed by two-way service operators. MDS licensees will be required to bear their own expenses in transitioning to the new bandplan and complying with the post-transition rules. However, to implement the objective of protecting those ITFS licensees that choose to continue traditional high-power, high-site downstream video and data distribution systems against interference from LBS and UBS cellularized operations, **WCA**, **NIA** and **CTN** recommend that the Proponent be required, at its cost, to satisfy two fundamental responsibilities: (1) installing at eligible ITFS receive sites improved downconverters designed to limit the reception of potentially-interfering signals from outside the MBS; and (2) physically shifting every ITFS video programming or data transmission track currently being transmitted to appropriate transmission facilities operating on **MBS** channels.¹⁰ The intent is that the Proponent will bear all equipment, installation and other direct costs incurred to provide for the continued reception of the ITFS video programming and data transmission tracks at the eligible receive sites.” Each of those obligations is addressed in turn.¹²

A. *The Replacement Downconverters*

To provide the requisite protection against interference from cellularized services in the LBS and UBS, the Proponent should be required to install at every eligible ITFS receive site a

¹⁰ There is at least one case in which an ITFS licensee simulcasts programming transmitted on its ITFS channels over an **MDS** station licensed at a different location to a wholly-owned subsidiary of the ITFS licensee. Under such circumstances, the MDS station should be considered to be an ITFS station for purposes of the transition rules (and for that purpose only). For the sake of simplicity, where ITFS stations are referred to in this Appendix, that reference should be read to include such an **MDS** station. In addition, for purposes of this Appendix commercial ITFS stations licensed pursuant to Sections 74.990-74.991 of the Rules should be considered to be **MDS** stations.

¹¹ It is not contemplated that the Proponent will be required to reimburse a licensee for the time its personnel spend on planning for and implementing the transition process, or for professional fees they may choose to incur in evaluating possible transitions. However, if the Transition Plan requires a licensee to submit any application with the Commission, the Proponent should be responsible for paying all FCC filing fees associated with the application(s), along with any reasonable legal or engineering fees incurred by the licensee in reviewing, filing and prosecuting that application(s).

¹² Because the purpose of the proposal is to protect high-power, high-site ITFS video and data operations that generally operate on a point-to-multipoint basis, special procedures are appropriate to address those relatively few situations where ITFS channels are used to provide studio-to-transmitter links. As is discussed in Safe Harbor # 9 in Section III.C.4, the Proponent of a transition can be afforded several viable options for addressing such links.

highly linear downconverter designed to minimize the reception of signals from outside the MBS. More specifically, that replacement downconverter (which may be, but should not be required to be, integrated with an antenna) should satisfy the following minimum technical characteristics:¹³

- The downconverter's input frequency range (the "in-band frequencies") must be 2572 MHz to 2614 MHz and output frequency range shall be 294 MHz to 336 MHz;
- The downconversion process must not invert frequencies;
- The nominal gain of the downconverter must be 32 dB, or greater;
- The downconverter must include filtering prior to the first amplifier that attenuates frequencies below 2500 MHz and above 2705 MHz by at least 25 dB;
- The downconverter must have an out-of-band input 3rd order intercept point (input IP3) of at least +9 dBm, where out-of-band is defined as all frequencies below 2566 MHz and all frequencies above 2620 MHz;
- The downconverter must have a typical noise figure of no greater than 3.5 dB, and a worst case noise figure of no greater than 4.5 dB across all in-band frequencies and across its entire intended operating temperature range.
- The downconverter must not introduce a delta group delay of more than 20 nanoseconds for digital operations or 100 nanoseconds for analog operations over any individual 6 MHz MBS channel.

An ITFS receive site should be entitled to receive a replacement downconverter as part of a transition process if: (1) a reception system was installed at that site on or before the date the ITFS licensee receives its Pre-Transition Data Request (which is discussed *infra* in Section III.B); (ii) the reception system was installed by or at the direction of the ITFS licensee;¹⁴ and (iii) that reception system is either (a) actually used to receive ITFS programming that comports with Section 74.931(a)(1) or (b) of the current Rules; or (b) is located at a cable television system

¹³ Of course, an ITFS licensee may agree during the Transition Planning Period to forego such a conversion. It is anticipated, for example, that an ITFS licensee that intends to focus its efforts on the provision of IP-based educational services over the cellularized services and forego more traditional ITFS broadcast-like video usage would not require the installation of replacement downconverters. And, of course, no replacement downconverters will be required with respect to an ITFS licensee that elects to swap its default MBS channel for additional spectrum outside the MBS, and therefore will have no MBS channel.

¹⁴ Under this approach, a downconverter that has been installed by the operator of a wireless cable system at a particular location at the specific direction of an affiliated ITFS licensee shall be entitled to an upgrade as part of the conversion. However, a downconverter that has been installed by the operator of a wireless cable system at the location of one of its wireless cable subscribers (*i.e.* installed without any specific direction of the ITFS licensee) should not be entitled to replacement even if the ITFS licensee's programming can be viewed by subscribers to the wireless cable system.

headend and the cable system relays such ITFS programming.” Just as Section 74.903(a)(5) limits interference protection to ITFS receive sites within 35 miles of the transmitter, only ITFS receive sites located within the licensee’s current 35-mile radius protected service area circle should be eligible for replacement downconverters.¹⁶ Of course, ITFS licensees should be free to install improved downconverters at other locations at their own expense.

The installation of replacement downconverters will need to be coordinated with the appropriate ITFS licensee(s).¹⁷ The logistical details of the installation are to be addressed by the Proponent and the ITFS licensee prior to or during the Transition Planning Period.¹⁸ It is anticipated that the Proponent and the ITFS licensees affected by a transition will work in good faith to resolve such logistical details and that arbitration (discussed *infra* at Section IV) and/or Commission intervention will be necessary only in rare cases.

B. The Migration of Video Programming and Data Transmission Track

Unless otherwise agreed during the Transition Planning Process, it is the obligation of the Proponent, at its cost, to provide each ITFS licensee that intends to continue downstream high-power, high-site educational video programming or data transmission services with one programming track on the MBS channels for each ITFS video programming or data transmission track the licensee is currently transmitting on a simultaneous basis.” To be eligible for

¹⁵ Any ITFS receive site that is not certified as being eligible for a replacement downconverter in the ITFS licensee’s response to a Pre-Transition Data Request will thereafter be ineligible for a replacement downconverter and will not be entitled to site-specific interference protection if outside the GSA.

¹⁶ As is discussed *infra* in Section III.A, the WCA/NIA/CTN proposal calls for the creation of exclusive GSAs for ITFS licenses by bifurcating overlapping protected service areas. An otherwise eligible ITFS receive site does not lose its eligibility for a new downconverter by virtue of this bifurcation – even if the receive site is not within the new GSA, it is entitled to a replacement downconverter if it is within the current protected service area.

¹⁷ As discussed *infra* in Section III.C.4, circumstances may arise under which the Proponent may make other modifications to the ITFS receive site in connection with the transition, such as upgrading a receive antenna to improve desired signal reception or better discriminate against undesired signal reception.

¹⁸ It is the obligation of the ITFS licensee to provide the Proponent with reasonable access to eligible ITFS receive sites to allow the installation of the replacement downconverter (along with any other reception equipment upgrades contemplated by the Transition Plan). “Reasonable access” shall mean that the Proponent must take due consideration of school, parish, community center or other applicable receive site hours so as to minimize disruption to ITFS programming or other activities taking place at the site, as well as site security concerns. If an ITFS licensee fails to provide such reasonable access, the receive site in issue should lose its eligibility to receive a replacement downconverter, but should be entitled to site-specific interference protection if outside the GSA as if a replacement downconverter has been installed.

¹⁹ For example, if an ITFS licensee is transmitting qualified ITFS programming on one channel from 9 am to noon, and on a second channel from 1 pm to 3 pm, it would only be entitled to migration of a single program track to the MBS as there is no simultaneous usage. However, if an ITFS licensee is using two channels to transmit ITFS programming from 9 am to noon, or is using one channel from 9 am to noon, and a second channel from 11 am to 2 pm, it is entitled to two programming tracks in the MBS.

migration, a program track must contain ITFS programming that comports with Section 74.931(a)(1) or (b) of the current Rules.²⁰ Only program tracks being transmitted on December 31, 2002 or within six months prior thereto should be migrated at the Proponent's cost – program tracks added by the ITFS licensee later certainly can be migrated, but at the expense of the ITFS licensee. Each eligible programming track must be migrated to spectrum in the MBS that will be licensed to the affected ITFS licensee at the conclusion of the transition? The Proponent's Transition Plan must provide for the MBS channels to be authorized to operate with transmission parameters that are substantially similar to those of the licensee's current operation? In addition, after the transition the desired-to-undesired signal level ratio at each of the receive sites securing a replacement downconverter must satisfy the following criteria:

- a. Cochannel DIU Ratio – In cases where the post-transition desired signal is transmitted utilizing analog modulation, the actual cochannel DIU ratio measured at the output of the reception antenna must be at least the lesser of (i) 45 dB; or (ii) the actual pre-transition D/U ratio less 1.5 dB. In cases where the post-transition desired signal will be transmitted utilizing digital modulation, the actual cochannel D/U ratio measured at the output of the reception antenna must be at least the lesser of (i) 32 dB; or (ii) the pre-transition DIU ratio less 1.5 dB. Where in implementing the Transition Plan the Proponent deploys precise frequency offset in an analog system, the minimum cochannel D/U ratio is reduced to 38 dB, provided that the transmitters have, or are upgraded pursuant to the Transition Plan to have, the appropriate “plus,” “zero,” or “minus” 10,010 Hertz precision frequency offset with a ± 3 Hz (or better) stability.

²⁰ Section 74.931(a) defines formal educational programming as that “offered for credit to enrolled students of accredited schools.” Section 74.931(b) defines informal ITFS programming as “other visual and aural educational, instructional and cultural material [transmitted] to selected receiving locations, including in-service training and instruction in special skills and safety programs, extension of professional training, informing persons and groups engaged in professional and technical activities of current developments in their particular fields, and other similar endeavors.”

²¹ This does not necessarily mean the programming track must be on the default MBS channel for that channel group. For example, as discussed in more detail *infra*, if the **A** Group licensee demands two program tracks in the MBS, the Proponent can satisfy its obligation by placing one program track on new channel **A4** (which is automatically licensed to the **A** Group licensee) and agreeing to swap one of the Proponent's MBS channels (say, channel **E4**) to the licensee such that the **A** Group licensee would then be the licensee of MBS channels **A4** and **E4**. However, if the **A** Group licensee currently transmits its two program tracks on only one channel in the **A** Group using digital compression, the Proponent must place the two program tracks on channel **A4** and digitize that channel appropriately.

²² For purposes of this requirement, a proposed facility should be considered substantially similar even if the Proponent proposes digitizing operations in accordance with Attachment C to the white paper or proposes the use of precision frequency offset in order to take advantage of the more advantageous interference protection requirements. For a discussion of other permissible deviations in the transmission parameters, see the discussion of Safe Harbor #1 *infra* at Section III.C.4.

- b.* Adjacent Channel D/U Ratio – The actual adjacent channel DIU ratio must equal or exceed the lesser of 0 dB or the actual pre-transition DIU ratio.²³ However, in the event that the receive site utilizes receivers, or is upgraded by the Proponent as part of the Transition Plan to utilize receivers, that can tolerate negative adjacent channel DIU ratios, the actual adjacent channel DIU ratio at such receive site must equal or exceed such negative adjacent channel DIU ratio.²⁴

Expanding the policy embodied in Section 74.903(a)(4) of the current Rules, the Proponent may propose as part of a Transition Plan to upgrade reception antennas at eligible ITFS receive sites (but only to the extent such upgrades can reasonably be accommodated at a particular site based on zoning, structural or environmental considerations) if necessary to achieve the required D/U benchmarks.²⁵ Along similar lines, the Transition Plan may call for the Proponent to make other reasonable modifications at the receive site designed to assure that operations in the LBS and/or UBS do not result in excess signal levels being received at ITFS receive sites. To avoid protecting ITFS receive sites where desired signal levels are unduly low, the Proponent should not be required to comply with paragraphs a. and b. with respect to any ITFS receive site that is not prior to the transition predicted to receive a desired signal carrier level of -80 dBm.²⁶ Nor should the Proponent be required to comply with paragraphs a. and b. with respect to any ITFS receive site that is not prior to the transition actually receiving a desired signal carrier level of -80 dBm.²⁷ Moreover, only a predicted undesired signal level greater than -106.2 dBm should be considered to be an undesired signal for purposes of paragraphs a. and b. above.²⁸

²³ WCA, NIA and CTN are exploring the possibility of a lower adjacent channel DIU benchmark for digital operations and will report to the Commission if agreement is reached.

²⁴ For example, if the television receivers at a given receive site can tolerate an adjacent channel DN ratio of -10 dB, the Proponent must only protect that site to a -10 dB adjacent channel DIU ratio. If the television receivers at a given receive site currently tolerate only a $+5$ dB adjacent channel DIU ratio and the Transition Plan calls for the replacement of those receivers with ones that can tolerate a -10 dB ratio, then the required adjacent channel DN benchmark for that receive site drops from 0 dB to -10 dB.

²⁵ Section 74.903(a)(4) currently provides for MDS and ITFS applicants to demonstrate compliance with the applicable D/U ratios by demonstrating that an upgraded antenna will satisfy the benchmark and by agreeing in the application to provide such an antenna. WCA, NIA and CTN propose retaining the concept, but since there will not be applications filed in connection with the licensing of the default channels provided each group, the proffer of the upgrade should come in the Transition Plan. A licensee that refuses to accept an upgraded antenna that comports with the rules cannot thereafter complain of interference to that receive site if the Proponent can demonstrate that such antenna upgrade is structurally sound, environmentally safe, and consistent with local zoning laws and regulations.

²⁶ The received carrier level should be predicted based on the receive site location, the actual receiving antenna gain and radiation pattern envelope and the actual receiving antenna height.

²⁷ Such exception will apply where the Proponent arranges for such measurements at its expense. The signal strength measurements should be taken at the output of the downlead cable, with adjustments made for the downlead cable loss and downconverter gain in order to simplify the process. If any receive site that is measured proves to

As addressed more fully in the discussion of Safe Harbor # 3 *infra* at Section III.C.4, a Proponent should be allowed to meet its obligation to a licensee entitled to multiple ITFS programming tracks in the MBS either by arranging for the licensee to receive multiple 6 MHz channels or by providing digital compression technology that provides the ITFS licensee multiple ITFS video programming or data transmission tracks on a single 6 MHz MBS channel. In the situations where the Proponent elects the latter option, compliance with the benchmarks for digital transitions set forth in Appendix C to the white paper should be required. Again, it is important to note that the digital transition benchmarks in Appendix C are default transition requirements, and the affected ITFS licensee and Proponent should be free to agree to any alternative arrangements prior to or during the Transition Planning Period.

Consider a hypothetical market in which each of the five ITFS channel groups is licensed to a different entity that holds all four channels, each ITFS licensee utilizes one channel for its own educational video programming or data transmissions while leasing the remainder, and all thirty-one 2.5 GHz band channels have been constructed by a single lessee/system operator at a single site utilizing uniform equipment. The transition will be accomplished by migrating each licensee's one programming track from its current transmit frequency to its newly assigned default MBS frequency under the new bandplan. Assume, for example, that the A group licensee currently uses 2500-2506 MHz (current channel A1) for its educational programming and leases its remaining spectrum. In connection with the transition, the Proponent would be required, at its cost, to migrate those operations to 2572-2578 MHz (current channel C3, the default MBS channel assigned to the A Group). The Commission should provide for the licensed operating parameters for 2572-2578 MHz automatically to be identical to those of the channel in the A Group on which the licensee was transmitting its educational programming (in this case, channel A1).²⁹ Under this scenario, the Proponent could satisfy its migration obligation either by: (a)

have an insufficient desired signal level, the Proponent shall provide an appropriate certification to the ITFS licensee.

²⁸ Both the -80 dBm and the -106.2 dBm values are to be adjusted *pro rata* in the event the applicable bandwidth varies from 6 MHz utilizing the factor $10\log [(actual\ bandwidth\ in\ MHz)/(6\ MHz)]$ in the event the applicable bandwidth varies from 6 MHz.

²⁹ In situations where a Transition Plan calls for the technical parameters on a given MBS channel to be other than substantially similar to the technical parameters on the same channel under the current bandplan, the Proponent shall be required to cure any harmful interference that results at the eligible receive sites of any ITFS licensee in a neighboring market that does not have its ITFS programming tracks migrated to the new bandplan as part of the transition. For example, assume that the current technical parameters of the A Group in Market A are not substantially similar to those of the current C3 operations in the market. In such a case, the Proponent will be required to cure any harmful interference that results to the C3 licensee in Market B (assuming it was not required to transition under the policies discussed *infra*) once a transition occurs and channel A4 starts operating in Market A on the spectrum that had formerly been used for channel C3 using different technical parameters.

It is important to note that new channel A4 will automatically be authorized to operate post-transition with the same operating parameters of the current A Group channels so long as those A Group parameters are identical for each channel. It is only when the current operating parameters of all of the A Group channels are not identical, or the

providing and installing a replacement transmitter tuned to 2572-2578 MHz that is comparable in quality and condition to the transmitter it is replacing; or (b) retuning the existing A1 transmitter to operate at 2572-2578 MHz. Because in this case the channels are collocated and are operating utilizing uniform transmission equipment installed by the system operator, the most likely means of transition will be simply to route the ITFS video programming or data transmission track to the channel C3 transmitter that is already in place and tuned to operate on the A Group's default MBS channel under the new bandplan (effectively replacing the current channel A1 transmitter with an identical one tuned to old channel C3/new channel A4).³⁰ The ITFS licensee should be required to take all reasonable steps necessary (both before and after the transition) to assure that title to any transmission equipment installed by the Proponent is transferred to the person owning the original transmitter, and title to the original transmitter (if replaced *en toto*) or any part removed from the original transmitter (if it has merely been retuned and/or upgraded) is transferred to the Proponent."

Of course, situations will arise that deviate from this hypothetical – channel groups may be licensed to multiple parties, ITFS licensees may be entitled to more than one ITFS video or data track in the MBS, etc. The Transition Planning Period affords the affected parties an opportunity to develop a market-specific transition plan that reasonably accommodates those deviations. Examples of the most likely deviations and "safe harbor" transition plans that will satisfy a Proponent's obligations absent agreement otherwise are provided *infra* in Section III.C.4.

channel on which a video programming track will be placed is not the default channel, that the issues arise over the technical parameters of MBS channels. Those issues are addressed *infra* in Section III.C.4.

³⁰ Indeed, as discussed in more detail in the white paper, one of the benefits of the bandplan proposed by WCA, NIA and CTN is that the default MBS channel assigned to four of the seven channel groups currently is assigned to a channel within that group under the current bandplan. The C Group's MBS channel is currently channel C4, the D Group's MBS channel is currently channel D4, the E Group's MBS channel is currently channel E1 and the F Group's MBS channel is currently channel F1.

³¹ It is the obligation of the ITFS licensee to provide the Proponent with reasonable access to the ITFS transmitter to allow the installation of the replacement transmitter (along with any other reception equipment upgrades contemplated by the Transition Plan). "Reasonable access" shall mean that the Proponent must take due consideration of school, parish, community center or other applicable receive site hours so as to minimize disruption to ITFS programming or other activities taking place at the transmitter site, as well as site security concerns. If an ITFS licensee fails to provide such reasonable access, the Proponent should be excused from its obligation to pay for the cost of transitioning the licensee's ITFS video programming to the MBS. However, if the ITFS licensee fails to provide access to the Proponent due to circumstances beyond the licensee's reasonable control (e.g., a dispute with a third party) the licensee should not be excused from complying with the new bandplan rules, but the Proponent should be required to pay for the cost of transitioning the licensee's system if and when the licensee can provide access to the site.

III. THE TRANSITION PROCESS

A. Identifying the Parties to the Process

At the risk of over-repetition, it is important to emphasize that the new bandplan has been designed to serve two fundamental objectives – it isolates high-power, high-site operations in the MBS to reduce the risk of cochannel interference to cellular operations in neighboring markets, and it segregates two-way operations from MBS operations to protect MBS video or data services from possible interference. To spread the costs of the transition over time, to provide a vehicle for financially supporting the transition of ITFS stations,³² and to minimize potential disruption, WCA, NIA and CTN are proposing that the transition be implemented on a market-by-market basis only when necessary or appropriate to serve the underlying purposes of the new bandplan. The initial task in a given transition process must be to identify those licensees who are required participants.

As noted above, after the New Bandplan Rules Effective Date, absent a waiver from the FCC, a licensee will only be able to modify a licensed facility or add a new facility under the limited circumstances set forth in footnote 2 hereof until the licensee has been transitioned to the new bandplan.³³ A licensee contemplating a modification or addition that does not fall within the limited circumstances set forth in footnote 2 must first institute a transition process in which the following nearby licensees (even those that are not cochannel or first adjacent channel) are required participants

- a) Every licensee that has not previously been transitioned and that has a TIA³⁴ that overlaps the GSA in which the contemplated base station will be located; and

³² It is important to note that absent a transition system that identifies some party (here, the Proponent) as causing the transition, there is no readily-apparent source of funds to subsidize the transition of ITFS licensees.

³³ Subject to compliance with the major and minor change rules then applicable to the MBS band, the restrictions on modifications or additions of facilities should not apply to current channels C3 through E2 (2572-2614 MHz) because these channels will remain in the MBS after the market conversion.

³⁴ The TIA for a station should be defined as its GSA plus, in the case of ITFS licensees, the specific location of any ITFS receive site certified as eligible to receive a new downconverter under the transition rules. There should be, however, one exception to the general approach for establishing the boundaries of GSAs and TIAs. The GSAs of BTA authorization holders may be extremely large and a BTA authorization holder may not intend to launch services throughout its entire BTA/GSA at once. As a result, the size of the GSA/TIA of a BTA authorization holder calculated under the general rule may extend far beyond the area in which the BTA authorization holder's intended operations will actually have any impact. To address this situation, WCA, NIA and CTN propose as follows:

1. If the BTA authorization holder is the Proponent, it should be permitted to reduce voluntarily the size of its GSA/TIA solely for purposes of any given transition process. For administrative convenience, and to reflect that deployments are likely to occur based on the GSAs of incumbent MDS and ITFS licensees, the reduced GSA/TIA should be required to mirror the boundaries of any GSA of any incumbent MDS or ITFS

- b) every non-transitioned licensee with a TIA to which any of the contemplated facility's transmission antennas will have an unobstructed transmission path calculated assuming receive antenna heights of 9.1 meters above ground level and employing a smooth earth with 413 earth curvature propagation model; and
- c) every non-transitioned licensee with a GSA that overlaps the GSA of a license being transitioned pursuant to a) or b).

Moreover, no operations of a new or modified base station should be permitted in the non-MBS channels (even if the underlying license has transitioned) unless the same three categories of nearby licensees are transitioned by the licensee to the new bandplan.

The above policies are designed to protect licensees operating under the current bandplan from interference caused by a transition. In addition, a Proponent should be permitted, at its sole discretion and at any time, to trigger the transition process with respect to any MDS or ITFS licensee that has a GSA located in whole or part within 150 miles of any portion of its GSA.³⁵ Any such transition must also include any license with a GSA overlapping a GSA being transitioned. This right serves a variety of needs, the most important of which is the need to address the possibility that if left in place outside the MBS high-power, high-site operations will interfere with the ability of cochannel cell sites that are placed above the ground clutter to receive low power signals from consumer equipment. This discretionary right of the Proponent allows it, for example, to avoid situations in which the Proponent is converting its market to introduce Time Division Duplex ("TDD") cellularized operations in the LBS and/or UBS and requires a neighboring market not brought into the process by any other criteria to convert to the new bandplan to avoid cochannel interference from high-power, high-site operations in the

licensee that is wholly within the **BTA** and should be established by having the **BTA** authorization holder certify to the Commission that it will not provide service outside of that particular **GSA**. Upon such certification, the **GSA/TIA** will be deemed reduced in size for purposes of the particular transition and neighboring licensees with **GSA/TIAs** that do not overlap the resulting smaller **TIA** can be excused from the transition process. In the event a **BTA** authorization holder provides such a certification, but subsequently decides to expand its service area, the **BTA** authorization holder must invoke the transition process anew as to any licensees excused from the process as a result of the initial reduction in the **GSA/TIA**.

2. A **BTA** authorization holder that is not the Proponent should only be a required participant and should only be considered for purposes of determining the other licensees that must participate in a transition **process** when the **BTA** authorization holder holds a license or conditional license for one or more facilities within the **BTA**. If it does not, then the **BTA** authorization holder should not be a participant in the transition process and its **GSA/TIA** ignored for purposes of determining which other licensees are required parties to the process.
3. If a **BTA** authorization holder that is not the Proponent does hold a license or conditional license for one or more facilities within the **BTA**, it shall be deemed to have separate **TIAs** defined as 35-mile radius circles centered at each the transmitting station and/or response station hub. The rules set forth above should then apply with respect to each such **TIA**.

³⁵ For purposes of these rules, a Proponent that is leasing spectrum is deemed to have the same **GSA** as its lessor.

neighboring market. This discretionary right will also assist Proponents in satisfying their obligations pursuant to Section II.B.

Any licensee identified for transition under these policies must be a party to the Transition process. However, it is important to emphasize that those who participate in the transition process need not necessarily be transitioned to the new bandplan upon completion. For example, many of the recoverable costs will be unknown to the Proponent at the time the Transition Notice (discussed below) is given. One of the purposes of the Transition Planning Period is to provide the Proponent **an** opportunity to identify all of the recoverable costs it will be responsible for should the transition occur. At any time during the Transition Planning Period, the Proponent may, at its sole discretion, decide not to proceed with the transition due to transition cost considerations. The Proponent may terminate the process in whole, or may terminate it in part with respect to any licensee that it voluntarily brought into the process and any other licensee that is required to be a participant solely because of a GSA overlap with the licensee voluntarily brought in by the Proponent.

B. The Pre-Transition Data Request

As discussed above, the Proponent must be able to determine the TIA for each MDS and ITFS licensee in order to identify those licensees that are necessary parties to a transition process. The TIA for each MDS licensee can be calculated based on information that currently is within the Commission's Broadband Licensing System ("BLS"), which WCA understands the Wireless Telecommunications Bureau intends to incorporate into the Universal Licensing System ("ULS") generally employed by the Bureau in the regulation of other wireless services.³⁶ However, because the Commission does not maintain ITFS receive site records of the sort necessary to determine eligibility for a replacement downconverter, the Proponent can only fully determine the TIA of an ITFS licensee by securing the necessary information from individual ITFS licensees. Moreover, the willingness of a Proponent to commence a particular transition may depend on the likely costs associated with meeting its transition-related obligations to ITFS licensees – costs that may not be readily apparent to the Proponent from publicly-available information. Therefore, any potential Proponent should be permitted, prior to commencement of any transition process, to serve upon any ITFS licensee (with an informational copy to its ULS-designated contact representative) at their addresses of record in ULS a "Pre-Transition Data

³⁶ As part of that process, and prior to the New Bandplan Effective Date, WCA, NIA and CTN urge the Commission to complete a process by which each incumbent MDS and ITFS licensee is required to review its protected service area information and other relevant data in the BLS and notify the Commission of any errors. The Commission should then issue a **Public Notice** seeking comment on any proposed changes to the BLS. That will provide neighboring licensees who might be adversely impacted by a change in protected service area boundaries or other parameters an opportunity to comment. The Commission should take care to provide licensees and system operators ample time to review the data – there are thousands of records to review, relatively few individuals sufficiently familiar with the licensing system to properly undertake the review, and substantial numbers of errors resulting from years of Commission database neglect. After this process, ULS should be considered the definitive source for calculating GSA boundaries and the technical parameters of MDS and ITFS stations.

Request’’ to elicit this information.)’ The Pre-Transition Data Request must include the Proponent’s full name, postal mailing address, contact person, email address, phone and fax number.

The recipient of a Pre-Transition Data Request should be required to provide the potential Proponent with a listing that identifies the location (by street address and, if known, geographic coordinates)³⁸ of every constructed ITFS receive site that, as of the date of receipt of the Pre-Transition Data Request, would be entitled to a replacement downconverter upon transition. In addition, the listing should indicate whether the downconverter is mounted on a structure attached to the building or on a free-standing structure, and the approximate height above ground level of the downconverter. If known, the response should also specify the adjacent channel DIU ratio that can be tolerated by any receiver(s) at the receive site. Finally, the response to the Pre-Transition Data Request should identify the number of ITFS video programming or data transmission tracks the ITFS licensee is entitled to receive in the MBS and whether the ITFS licensee will accept fewer tracks in the MBS. The response to the Pre-Transition Data Request should be considered a representation not only to the potential Proponent, but also to the Commission.

Because the date of receipt of the Pre-Transition Data Request establishes certain rights of the ITFS licensee, the Pre-Transition Data Request should be sent by certified mail with return receipt requested, courier, overnight delivery, or other service that provides evidence of receipt. The recipient should be required to provide the requested information to the potential Proponent by any delivery service that provides evidence of receipt no later than twenty-one (21) calendar days after delivery of the Pre-Transition Data Request. In the absence of a timely response, the potential Proponent should make at least two attempts to contact both the licensee and the licensee’s designated ULS contact representative by telephone during normal business hours to ensure receipt of the Pre-Transition Data Request. If the potential Proponent makes contact with the licensee or its representative, and the licensee requests additional time to respond, the licensee should be given an additional fifteen (15) calendar days to respond. In the absence of a response, the potential Proponent should be permitted to proceed with the transition without having to provide for the migration of any of the licensee’s programming tracks to the MBS, without replacing any of the licensee’s downconverters, and with the unrebuttable presumption that the ITFS licensee’s TIA is coterminous with its GSA unless the licensee subsequently provides the requested information to the Proponent before the end of the 90-day Transition Planning Period and the Proponent is able to use that information as part of the transition process without prejudice to other parties and without significant additional expense to the Proponent.

³⁷ Because failure to respond to a Pre-Transition Data Request can have adverse consequences for an ITFS licensee (*see infra*), the Pre-Transition Data Request should be required to clearly and conspicuously indicate on its first page that it is a Pre-Transition Data Request and that failure to respond in a timely manner may affect the recipient’s interference protection or other rights.

³⁸ The datum (NAD27 or NAD83) applying to each set of geographic coordinates must in all cases be indicated

C. The Transition Planning Period

1. The Transition Notice

A given transition process formally commences when the Proponent serves one or more Transition Notices.³⁹ A Transition Notice must be served upon each of the licensees (with an informational copy to their ULS-designated contact representative) who is a necessary party to a given transition under the criteria discussed above. If the party is an ITFS licensee, the Transition Notice must be served upon it no more than six months after the Proponent received that licensee's most recent response to a Pre-Transition Data Request.⁴⁰ The Transition Notice should advise the recipient that the Proponent is commencing a transition process, identify the other MDS/ITFS licensees that will be part of the process, provide copies of the most recent response to a Pre-Transition Data Request for each participant in the process, identify the Proponent's point of contact and provide his/her telephone and fax numbers and email address. In addition, the Transition Notice must contain a certification under penalty of perjury by the Proponent to the recipient and to the Commission that it has funds available to it to pay the reasonably expected costs of the transition based upon the information contained in the Pre-Transition Data Request responses. Like the Pre-Transition Data Request, the Transition Notice should be addressed to the licensee's BLS/ULS address of record and should be sent by certified mail with return receipt requested, overnight mail, courier service or other method generating proof of delivery. Upon receipt of a Transition Notice, the recipient must advise the Proponent's contact person of its own contact person and provide appropriate contact information within ten business days.

2. The MVPD "Out-Out"

As noted above, one of WCA's objectives in developing a transition mechanism is to assure that the adverse impact on operators of substantial wireless cable systems is mitigated.

³⁹ In situations in which two or more licensees or lessees agree before the service of Transition Notices, "the Proponent" can be a joint undertaking of licensees and/or lessees. In the event a single licensee or lessee commences a transition process, it can subsequently permit other licensees or lessees to join it as "the Proponent" by providing notice to the other participants in the transition process. In cases of joint undertakings, the licensees and/or lessees should agree on rules for governing the joint undertaking and the Commission should not be interjected into disputes among the members of the joint undertaking.

Note that in some cases, it is conceivable that the daisy-chains created by the commencement of transitions in two different markets will intersect. The transition process contemplates a single Proponent and the Proponents in such a case should be strongly encouraged to establish a joint undertaking to serve as the sole Proponent upon discovering the linking daisy chains. Absent such agreement, the Proponent that first served all of its required Transition Notices should be considered the Proponent for purposes of the transition process.

⁴⁰ If a Transition Notice is not served within six months of receipt of a response to a Pre-Transition Data Request, a new Pre-Transition Data Request must be served and responded to. The circumstances existing as of the date of receipt of the subsequent Pre-Transition Data Request establishes the ITFS licensee's entitlement to replacement downconverters.

The new bandplan eliminates for much of the 2.5 GHz band the standard 6 MHz channelization used for video and imposes technical requirements (particularly, signal strength limits) that some video systems may not be able to meet absent modification. Yet, because the practical effect of exempting a wireless cable system operator from complying with the proposed rules is to hamper, if not preclude, deployment of next generation systems in the same market and in neighboring markets, care must be taken to limit the protection only to those situations where the public interest would suffer substantial harm if required to transition to the new bandplan. To accomplish that objective, WCA proposes that the Commission establish a 30-day window following the New Bandplan Rules Effective Date during which any qualifying 2.5 GHz band MDS licensee can, if it intends to invoke the “opt-out” provisions in the future, certify to the Commission under penalty of perjury: (i) that it or an affiliate⁴¹ is a multichannel video programming distributor (“MVPD”) as defined in Section 522 of the Communications Act of 1934, as amended,⁴² that utilizes the 2.5 GHz band to provide service to subscribers; and (ii) that as of the date of certification it provides MVPD service to 5% or more of the households within its GSA.⁴³ Penetration calculations should be made in accordance with the provisions of Section 76.905(c) of the Commission’s Rules. The certification should also identify the call signs of all of the MDS and ITFS stations comprising the system. Upon the closing of that 30-day certification window, the Commission should then make public the list of certifying MVPD licensees.⁴⁴ Only MVPD licensees appearing on that list should thereafter be permitted to invoke the special provisions applicable to MVPDs.⁴⁵

⁴¹ For purposes of this requirement the definition of “affiliate” should be that used in Section 76.5(z) (“When used in relation to any person, another person who owns or controls, is owned or controlled by, or is under common ownership or control with, such person”). Licensees that merely lease to an MVPD are not thereby “affiliates” of that MVPD and cannot invoke the “opt-out” right -- that right is limited to MVPD licensees. Moreover, **ITFS** licensees engaged in the transmission of multiple channels of ITFS programming are not entitled to invoke the MVPD “opt-out” protection, as they are entitled instead to have their programming transitioned to the MBS.

⁴² Section 522 defines an MVPD as a “an multichannel multipoint distribution service . . . that makes available for purchase, by subscribers or customers, multiple channels of video programming.” “Video programming” is defined as “programming provided by, or generally considered comparable to programming provided by, a television broadcast station.”

⁴³ The 5% figure is one-third of the 15% penetration figure that is used to establish whether an MDS/ITFS-based MVPD is effective competition to a cable television system. *See* 47 C.F.R. §76.905(a)(2)(ii).

⁴⁴ Because the purpose of the certification is to secure certain protections during the transition process that are of value only to those planning to remain in the MVPD business, it is likely that many who could certify will choose not to because they are planning to convert to **data** operations in the near future.

⁴⁵ An MVPD that does not satisfy the 5% penetration criteria should be afforded ample time during the transition to make the necessary adjustments in its operations in the LBS and UBS to comply with the rules **applicable** to those segments or to utilize other technologies to accommodate their subscribers. *See infra* Section III.C.4.

No later than thirty days after commencement of the Transition Planning Period, any MVPD licensee appearing on that *Public Notice* may opt out of the transition process. To do so, the licensee must provide the Proponent and the other parties to the transition process with written notice of its election to opt out and a certification that, as of the date of its election notice, it continues to serve 5% of the households in its GSA.⁴⁶ Such “opt out” should automatically be extended to any other MDS or ITFS station that is collocated with the MVPD licensee invoking the protection. In addition, the “opt out” should allow the Proponent, in its discretion, to excuse from the transition process any licensee that was included in the process because of an overlap with the GSA of any MVPD-affiliated licensee that opted out.

While any licensees excused from the transition process as the result of an MVPD “opt out” may continue to operate utilizing the current bandplan and will be subject to the associated technical and operational rules,⁴⁷ those licensees are required to continue to participate in the Transition Planning Process in good faith and to subsequently make such modifications to their facilities at the Proponent’s expense as the Proponent may reasonably request in an effort to reduce interference to the licensees in other markets that are transitioning. Licensees should be required to reduce EIRP, reduce transmission antenna height, or add beam tilt where doing so can be accomplished without more than a *de minimus* reduction in the MVPD’s ability to serve its then-existing subscribers.⁴⁸

3. Planning for a Transition

The Transition Planning Period is a 90-day period that commences on the day after the all of the Transition Notices required for a particular transition have been received by the affected licensees. The Proponent shall promptly thereafter notify each licensee’s contact person of the identity and contact information for the contact persons for the other participants and of the date on which the Transition Planning Period commenced.

The Transition Planning Period is intended to serve a variety of objectives. As noted above, it is during the Transition Planning Period that the Proponent and affected ITFS licensees will agree on the logistical details of required downconverter replacements and video and data

⁴⁶ This second certification is essential to assure that where a system’s subscriber base has diminished below the 5% threshold since the initial certification process, a transition to the new bandplan is not wrongly frustrated.

⁴⁷ However, the licensees of stations that do transition will only be required to afford to the licensees affiliated with the MVPD with interference protection in accordance with the LBS/UBS rules (*i.e.* they will only be required to maintain their signal level at the appropriate level at the border of their GSAs and will only be subject to the appropriate spectral masks).

⁴⁸ For purposes of this provision, a reduction of 5% or less in the number of actual subscribers should be considered *de minimus*. However, if the changes required to satisfy the Proponent requires a reduction of 2.5% or more in the number of actual subscribers, the Proponent should be required to compensate the MVPD at marketplace rates for each lost subscriber in excess of 2.5% (*i.e.* for each lost subscriber between 2.5% and 5% of the MVPD’s total subscriber base).

migration to the MBS. The Transition Planning Period also provides a forum for the various parties to discuss their plans and objectives and, as such, provides a vehicle for agreement on frequency usage and assignments that may deviate from the default provisions set forth in Attachment 1. For example, through exchange of information as to which licensees require MBS spectrum and which do not, it provides a vehicle for arranging channel swaps.⁴⁹ Where licensees are going to be sharing licenses or equipment following the transition, the Transition Planning Period provides an opportunity to agree on logistical details or agree to alternative arrangements. And, as noted above, it allows the Proponent to identify the costs that will be incurred if it proceeds with a transition. What the Transition Planning Period cannot become is an opportunity for licensees to frustrate a transition or seek greenmail. The Transition Planning Period is intended to be a forum for agreeing on transition logistics and deviations from default provisions, *it is not a negotiation as to whether the transition will occur and it is not a vehicle for licensees to extract premiums in exchange for cooperation,*

WCA, NIA and CTN believe that the Commission should impose minimal restrictions on the Transition Planning Period and the sorts of agreements that licensees can reach to deviate from the default provisions of the rules. The new bandplan provides licensees with a wealth of new opportunities, and in some cases new challenges, and the affected licensees are best able to determine how the transition is to occur. The default license assignments set forth in Attachment 1 and the safe harbors discussed below provide a starting point for discussions and are necessary to assure that no recalcitrant licensee can frustrate a transition. Save for these necessary default provisions and safe harbors, providing maximum flexibility to the parties as to how the transition

⁴⁹ In many areas of the country, particularly in the more rural areas, there are ITFS channels that are not currently licensed and that may be outside of any GSA or TIA as of any planned transition. In these markets, the new bandplan may be problematic to system operators who prefer to deploy FDD technology because the traditional MDS channels (the E, F and H Groups) are all located in the UBS, and no traditional MDS channels are in the LBS. As noted above, FDD technology requires a separation between the highest upstream and lowest downstream frequency, and it simply is not practical to provide sufficient separation and have sufficient capacity for an FDD system operating solely within the UBS. To avoid frustrating deployment of FDD technologies in these markets, the Commission should permit Transition Plans to provide for the migration of MDS licensees from the UBS to vacant ITFS spectrum in the LBS. For purposes of this proposal, an ITFS channel should be considered "vacant" if the MDS licensee's GSA does not overlap the TIA of any ITFS licensee of the channel in issue. In other words, a Transition Plan can call for the migration of the licensee of E1-3 to A1-3 so long as the GSA assigned that licensee does not overlap the TIA of any A1-3 licensee. Following the migration, the LBS channels should be treated as MDS channels and the now-vacant UBS channels treated as ITFS channels for regulatory purposes (just as with any channel swap). Exchanges of UBS spectrum with MBS spectrum should not be permitted, as that would reduce the amount of spectrum available in the market for traditional high-power, high-site ITFS operations. Nor should any Transition Plan be permitted to call for a migration without the consent of the party to be migrated. Although Proponents should make every effort to accommodate the requests of MDS UBS licensees to shift to vacant LBS spectrum, the failure of a Transition Plan to provide for any requested exchange should not render the plan unreasonable. Finally, if an MDS licensee is seeking contiguous channels in the LBS, it should be required to exchange an equal number of contiguous LBS channels (*i.e.* if an MDS licensee seeks A1-3, it should be required to give up its rights to three contiguous channels in the UBS).

will be accomplished is most likely to result in the most efficient use of the 2.5 GHz band in each market.

While WCA advocates affording substantial flexibility as to the ultimate transition plan, the Commission should impose a basic procedural structure to the transition planning process. WCA proposes that no later than **30** days before conclusion of the Transition Planning Period, the Proponent must provide participants with a written plan for reasonably implementing the transition (the “Transition Plan”). The Transition Plan should be sent by certified mail with return receipt requested, courier, overnight delivery, or other service that provides evidence of receipt. The Transition Plan should identify the call signs of the stations that will transition to the new bandplan, the specific channels that each will receive following the transition, the receive sites at which replacement downconverters will be installed, the video programming and data transmission tracks that will be migrated to the MBS, the technical configuration of the MBS facilities, and the approximate time line for effectuating the transition and ceasing operations pursuant to the current bandplan (such timeline not to exceed 18 months from the conclusion of the Transition Planning Period or, in the event that the transition is delayed pending dispute resolution, the resolution of any dispute). The Transition Plan should also provide for the establishment of an escrow or other appropriate mechanism for ensuring completion of the transition in accordance with the Transition Plan.

Each of the other participants can then determine whether the Transition Plan is reasonable as it relates to its interests and, if it deems the Proponent’s plan unreasonable, can submit a written counterproposal that must be received by the Proponent no later than ten business days before the conclusion of the Transition Planning Period.” The counterproposal need only address issues of concern to the licensee submitting the counterproposal and any other licensees affected thereby, as opposed to all licensees in the market. If no timely counterproposal is received by the Proponent, the Proponent should then submit a copy of the Transition Plan to the Commission purely for informational purposes (serving the other parties to the transition) and thereafter be deemed authorized to implement the Transition Plan in accordance with its terms.⁵¹ If, however, a counterproposal is received, the Proponent should have three options:

- First, the Proponent should be permitted to simply accept the counter-proposal, modify the Transition Plan accordingly, file the modified Transition Plan with the Commission and serve the other parties, and then proceed in accordance with its terms.

⁵⁰ Any participant that does not provide a written counter-proposal within the time afforded should be deemed to have accepted the Transition Plan and shall be estopped from objecting to a transition pursuant to that plan.

⁵¹ If, subsequent to the filing of a Transition Plan, the Proponent and an affected licensee agree on a modification, the modification plan should be filed with the Commission and served on the other parties.

- Second, the Proponent should be permitted to invoke the dispute resolution procedures (discussed *infra* in Section IV) for a determination as to whether its proposed Transition Plan is reasonable and take no action to implement the Transition Plan until a determination as to the reasonableness of the Transition Plan is made.
- Third, the Proponent should be allowed to invoke the dispute resolution procedures for a determination as to whether its proposed Transition Plan is reasonable but, instead of awaiting a ruling, implement the counterproposal immediately. To do so, the Proponent should be required to file copies of the Transition Plan and counterproposal with the Commission and advise the Commission that it is electing to proceed with the provisions of the counterproposal under protest. The Proponent would then be free to implement the counterproposal. If the counterproposal is implemented pending dispute resolution, and the Transition Plan ultimately is found to be unreasonable, the Proponent should be required to reimburse the party that submitted the counterproposal for the fees and expenses arising out of the dispute resolution process (including the fees and costs of the arbitrator(s), and reasonable legal and engineering fees and expenses). If the counterproposal is implemented pending dispute resolution, and the Transition Plan ultimately is found to be reasonable, the party that submitted the counterproposal should be required to reimburse the Proponent for those additional documented costs incurred by the Proponent which were (i) over and above what the Proponent proposed in its Transition Plan, and (ii) directly related to implementing the counterproposal. This approach will assure that licensees do not create a dispute merely to frustrate a transition and/or force the payment of greenmail, and is essential to the achievement of expediting transitions to the new bandplan.

4. The Safe Harbors

As noted *supra* in Section ILB, implementing the transition should be a relatively simple process where all of the 2.5 GHz channels are collocated and operating with matched technical parameters and all of the ITFS licensees are utilizing just one 6 MHz channel for the transmission of educational programming. However, there will be situations that deviate from that standard. To minimize disputes between Proponents and licensees in these cases, the Commission should establish a series of “safe harbors” that will allow Proponents to craft Transition Plans with the knowledge that they will be deemed reasonable in the event of a dispute. The following safe harbors are intended to specify reasonable Transition Plan provisions that can be offered by a Proponent and implemented absent agreement otherwise during the Transition Planning Period.

Safe Harbor #1 As is discussed *supra*, the default MBS channel assigned each channel group generally will be authorized to operate after the transition with the same transmission parameters (coordinates, antenna pattern, height of center of radiation, EIRP, etc.) as the current downstream facilities authorized for the channel group. However, situations are likely to arise where minor changes to the operating parameters are necessary to accomplish the transition.

Neighboring cochannel or adjacent channel licensees should not be permitted to object to any change from the default configuration so long as either: (1) the change is not a major modification under the new MBS rules; or (2) the change is a major modification and the Transition Plan calls for the appropriate application for Commission consent to be filed, for it to be processed in accordance with the procedures assuring public notice and an opportunity to object, and for it to be granted prior to implementation. The ITFS licensee being migrated should not be permitted to object to a Transition Plan that proposes affording the ITFS licensee with post-transition operating equipment that is as good or better as that used pre-transition. While the determination of what is as good or better should generally be made on a case-by-case basis considering such factors as reliability, quality, features and remaining useful life, certain safe harbors should be established. Provided that the Proponent is not proposing a change in the geographic coordinates of the facilities (other than as necessary to conform the actual location with the Commission's Antenna Survey Branch database) and provided further that the minimum DIU benchmarks discussed above in Section II.B will be achieved, the Proponent should be permitted in the Transition Plan to propose:

- o An increase in the height of the center of radiation of the transmission antenna or a decrease in such height of no more than 8 meters (provided that such change does not result in an increase in antenna support structure lease costs to the ITFS licensee and the consent of the owner of the antenna support structure is obtained)?'
- o a change in the EIRP of the transmission system of up to 1.5dB in any direction.
- o Digitization, which is discussed in more detail below in Safe Harbor # 3 , precision frequency offset, or other upgrades to the ITFS transmission or reception systems that allow the Proponent to invoke more advantageous interference protection requirements applicable to upgraded systems.

Safe Harbor # 2 In some cases, prior to the transition an ITFS licensee may have channel-shifted its single video programming or data transmission track to spectrum licensed to another licensee. Under the transition rules, that track must be on the MBS channel licensed to the ITFS licensee upon completion of the transition. Say, for example, the A Group licensee had shifted its ITFS video programming to channel C1. If one of the A Group channels is currently licensed with technical parameters substantially similar to those of channel C1, a Transition Plan can call

⁵² This is particularly true where a Transition Plan calls for a given ITFS licensee to receive two or more channels in the MBS. For example, it is common in the industry to transmit the A, C, E and G Groups utilizing one transmission antenna and the B, D, F and H Groups utilizing a second antenna, often at a slightly different height. In cases where a given ITFS licensee is entitled to a second MBS channel (in addition to its default channel), the Proponent may need to place the MBS channel on the antenna other than the one used by the ITFS licensee pre-transition. So long as the second antenna system meets the criteria specified in Safe Harbor # 1, such a change would be considered reasonable.

for MBS channel A4 to be licensed with the same technical parameters as current channel C1.⁵³ However, if the current A Group channels are licensed to operate with technical parameters materially different from those of channel C1, the Proponent will have two options. First, it can arrange a channel swap with the licensee of the C Group so that the A Group licensee will receive MBS channel C4 (which will automatically be licensed with the same transmission parameters as current channel C1) in exchange for channel A4. Second, the Proponent can arrange for MBS channel A4 to operate with transmission parameters substantially similar to those of current channel C1 (*see Safe Harbor # 1*).

Safe Harbor # 3 Where an ITFS licensee is entitled to two or more video programming or data transmission tracks in the MBS, absent agreement prior to or during the Transition Planning Period to the contrary, the Proponent has two options:

- First, the Transition Plan can call for migration of one of those programming tracks to the ITFS licensee's default channel in the MBS (*e.g.* channel A4 in the case of the A Group licensee) and provide the ITFS licensee an additional 6 MHz channel in the MBS for each additional ITFS video programming or data transmission track. If the Proponent chooses this option, it must assure that the additional MBS channels can operate with transmission parameters substantially similar those of the channel(s) on which the ITFS video or data tracks were broadcast pre-transition (*see Safe Harbor # 2*). In exchange, the contributor of each additional MBS channel will be entitled to one of the recipient ITFS licensee's channels in the LBS or UBS (along with the associated Transition Band channel)⁵⁴ for each additional MBS channel provided. The additional MBS channels can be ones that would have been licensed to the Proponent under the default system, or can be made available by way of channel swapping arrangements with other licensees in the market orchestrated by the Proponent. The channels the contributor receives in exchange for its MBS channel shall be located at one of the ends of the recipient ITFS licensee's default allocation, rather than in the middle.⁵⁵

⁵³ In this situation, the licensee of the C Group channel could not invoke the programming transmitted on channel C1 on behalf of the A Group licensee to secure a video programming track of its own. If, for example, the C Group channels were used solely for the transmission of educational programming, with C1 used for the A Group licensee's channel-shifted programming, C2 used for the B Group licensee's channel-shifted programming, C3 for the C Group licensee's own programming and C4 for the D Group licensee's channel-shifted programming, the C Group licensee could only claim entitlement to a single video programming track in the MBS.

⁵⁴ Because a LBS or UBS channel plus its associated Transition Band channels total 6 MHz, the exchanged spectrum is equal in quantity.

⁵⁵ The licensee contributing its MBS channel can select the channel in the LBS or UBS it will receive. For example, if the A Group licensee elects to take a second channel in the MBS, the MBS licensee contributing that channel may select either channel A1 or A3 (and associated Transition Band channels) to be exchanged for the second MBS channel. Such selection shall be made during the Transition Planning Period and reflected in the Transition Plan. In the event that more than one MBS channel is contributed to an ITFS licensee (because it operates more than two

- In the alternative, at the sole option of the Proponent, the Transition Plan can call for the installation of digital compression technology to transmit multiple tracks on the licensee's default MBS channel(s).⁵⁶ In the case of such an election, the Transition Plan will have to call for the digital transition standards set forth in Attachment C to the white paper to be satisfied. In any case where the licensee's existing tracks are provided on only one channel using digital compression, however, the Proponent will be required to install digital compression technology on a single channel.

Safe Harbor # 4 In some cases, multiple licensees currently share a channel group, with each licensed individually to one or more channels. If the licensees are either MDS licensees or ITFS licensees who do not choose to migrate programming to the MBS and those licensees were unable to reach agreement on the post-transition licensing of channels, the Transition Plan can safely provide for the licensing of the spectrum in each segment on a *pro rata* basis (with channel(s) in each segment being disaggregated when and if necessary to provide each licensee with its *pro rata* share of the spectrum in each segment). If the multiple licensees are ITFS licensees and each is entitled to video programming or data transmission tracks, as in Safe Harbor # 3 the Proponent has two choices absent agreement otherwise:

- First, it can secure for each licensee its own 6 MHz MBS channel in exchange for non-MBS channels assigned to the group.⁵⁷ Following the channel swap(s) necessary to secure those additional MBS channels, the Transition Plan can provide for the licensing of the remaining channels in the LBS, UBS, Transition Bands and I Band on a *pro rata* basis (with channel(s) in each segment being disaggregated when and if necessary to provide each with its *pro rata* share of the spectrum in each segment).⁵⁸

ITFS video programming tracks), the first set of channels in the LBS or UBS to be swapped shall be at one end of that ITFS licensee's allocation, with the additional channels to be swapped directly adjacent. For example, if the A Group licensee elects to take a third channel in the MBS, the Transition Plan may call for the exchange of either channels AI and A2 or channels A2 and A3 (and associated Transition Band channels).

⁵⁶ It is anticipated that in many cases all of the video programming tracks to which an ITFS licensee is entitled could be accommodated on a single compressed MBS channel. However, where capacity limitations require additional MBS channels to meet a licensee's video programming track requirement, the Proponent should be required to secure additional MBS channels for the ITFS licensee (in exchange for LBS/UBS and associated Transition Band channels) and to digitize the appropriate number of program tracks to meet the MBS programming track requirement.

⁵⁷ Absent agreement otherwise, the licensee of the fourth channel in a group (*i.e.* channel A4, B4, C4, etc) under the old bandplan shall receive the default MBS channel for the Group (*i.e.* channel A4 for the A Group) under the new bandplan. The other MBS channel(s) procured by the Proponent will be assigned to the licensee(s) of the other channels in the Group.

⁵⁸ For example, assume Licensee X currently holds channels AI and A2 and Licensee Y holds channels A3 and A4 and are unable to agree upon a plan for splitting their channels under the new bandplan. Further assume that the Proponent arranges a channel swap with the licensee of channel E4 in order to provide Licensee X with MBS

- Second, the Transition Plan can call for pro rata segmentation of the default MBS channel for the group, provided that the Proponent commits to provide each of the licensees with the technology necessary for its ITFS video programming or data transmissions to be digitized, transmitted and received utilizing the provided bandwidth.⁵⁹ The non-MBS channels would be divided among the sharing licensees on a pro rata basis (with channel(s) in each segment being disaggregated when and if necessary to provide each with its pro rata share of the spectrum in each segment).

If only one of the sharing ITFS licensees elects to migrate video programming or data transmissions to the MBS, the default MBS channel assigned to that channel group shall be licensed to that licensee. The remaining spectrum assigned to the group will be allocated among the licensees on a pro rata basis, with the 6 MHz in the MBS counting against that licensee's portion. To the extent necessary, the non-MBS spectrum can be disaggregated when and if necessary to provide each with its pro rata share of the spectrum in each segment. If the one licensee that elects to migrate ITFS video programming transmits multiple ITFS video programming tracks, the options identified in Safe Harbor # 3 are available to the Proponent to satisfy its migration obligations. If the proponent chooses to effectuate a channel swap to provide more than one channel in the MBS, the remaining channels assigned to the group (after considering that one or more LBS/UBS channels and associated Transition Band channels will have been swapped away to provide the additional MBS channel) can be allocated among the licensees on a pro rata basis (with channel(s) in each segment being disaggregated when and if necessary to provide each with its *pro* rata share of the spectrum in each segment).

Safe Harbor # 5 Cases may arise in which, prior to the transition, the **ITFS** licensee of a single four channel group was operating some channels from one location and the other channels in the group from a second (or a third, or a fourth location). If the simultaneous ITFS video or data tracks are being transmitted from only one location, then the technical parameters of that location will govern the MBS license. If **ITFS** tracks are being transmitted from multiple locations, the Proponent shall provide for the post-transition transmission of the appropriate

spectrum, in exchange for which the licensee of **E4** elects to take channel **A3** (and the associated Transition Band channel) under the new bandplan. If Licensee X and Y cannot agree otherwise, the Transition Plan will be deemed reasonable if it calls for Licensee X to receive channel **A1** or channel **A2** (and the associated Transition Band and 1 Band channels) in the new bandplan, and for Licensee Y to receive the other channel (and associated Transition Band and 1 Band channels). If, however, Licensee X currently holds channels **A1**, **A2** and **A3** and Licensee Y holds channel **A4**, then Licensee X will receive both of the remaining channels in the LBS (and associated Transition Band and 1 Band channels) after Licensee X receives **A4** in the MBS and Licensee Y receives **E4** in the MBS in exchange for channel **A3**.

⁵⁹ The license issued to each of the licensees will by default specify the disaggregated channel and the technical parameters of that licensee's current facilities. Returning to the example in the prior footnote, a Transition Plan would be reasonable if it called for Licensee X to receive a license for the first three megahertz of channel **A4** (2572-2575 MHz) with the operating parameters of its current **A1-A2** license and for Licensee Y to receive a license for the remainder of the channel (2575-2578 MHz) with the operating parameters of its current **A3-A4** license.

number of ITFS tracks at each such location. The Transition Plan will be considered reasonable if it calls either for the licensing of a separate MBS channel at each location (in which case spectrum in the LBS or UBS (and associated Transition Band channel) would be swapped) or if it calls for the split-licensing of the default MBS channel at multiple locations as addressed in footnote 59.

Safe Harbor # 6 Although Transition Plans should generally be designed to minimize the amount of time ITFS transmissions will have to cease, some disruption is inevitable. A Transition Plan will not be considered unreasonable if it calls for interruptions in ITFS transmissions, so long as those interruptions are limited to a period of seven or less consecutive days at any receive site. However, the Proponent must coordinate with each ITFS licensee to reasonably minimize the extent of any disruption. The Transition Plan may call for the shifting of an ITFS licensee's program to alternative channels, and such shifting shall not be considered an interruption so long as the ITFS licensee's receive sites are equipped to receive and internally distribute the channel to which the programming is shifted.

Safe Harbor # 7 A Proponent may determine that interference from transmissions in the MBS to operations outside the MBS can be mitigated by the installation of an appropriate filter on the MBS transmitter. In such case, the licensee operating the MBS transmitter shall be required to accept any filter proffered as part of a Transition Plan or thereafter and reasonably cooperate with installation of that filter, as long as the Proponent can demonstrate that the installation of such filter will not unreasonably degrade the performance of the licensee's system. If installation of the proposed filter would not cause a delta group delay of more than 100 nanoseconds for analog operation or more than 20 nanoseconds for digital operation, the installation of the filter will not be deemed to unreasonably degrade the performance of the system. The Proponent must supply technical information regarding the proposed filter to the MBS licensee to allow the MBS licensee to make this determination.

Safe Harbor # 8 In some cases, the facilities being transitioned will be used by an MVPD that either is not eligible for the MVPD opt-out program discussed in Section III.C.2 because it lacks sufficient market penetration or has chosen not to avail itself of the opportunity. In such a situation, a Transition Plan will be considered reasonable if it provides the greater of 2 years from the date of this filing (October 7, 2002) or 6 months from the Transition Notice before the MVPD and its affiliated licensees are required to comply with the technical rules applicable to the LBS and UBS. WCA, NIA and CTN recognize that compliance with those rules may require modification to the MVPD system, which will have to be undertaken at the MVPD's cost except as they relate to the transition of ITFS programming to the MBS. The time afforded by this safe harbor should provide an ample opportunity for the MVPD and its affiliated licensees to make the appropriate adjustments.

Safe Harbor # 9 As noted *supra* at footnote 12, there are situations in which an ITFS licensee utilizes one or more of its channels for studio-to-transmitter links. In such a case, the Transition Plan will be deemed reasonable if it provides for either:

- the use of the LBS and/or UBS band for the point-to-point transmission of the ITFS video or data (through superchannelization of the licensee's contiguous LBS or UBS channels), provided the Proponent commits to retune the existing point-to-point equipment to operate on those channels or to replace the existing equipment with new equipment tuned to operate on those channels and the proposal complies with the LBS/UBS technical and interference protection rules;
- the migration of the ITFS programming to the MBS by retuning the existing point-to-point equipment to operate in the MBS or replacing it with equipment tuned to operate in the MBS;
- the replacement of the point-to-point link with point-to-point equipment licensed to the ITFS licensee in alternative spectrum, so long as the replacement facilities meet the definition of "comparable facilities" set out in Section 101.75(b) of the Commission's microwave relocation rules.

IV. DISPUTE RESOLUTION

To avoid situations in which licensees attempt to "game the system" by creating disputes designed to frustrate transitions or secure greenmail, it is essential that the Commission put in place a system for quickly resolving disputes involving Transition Plans. WCA, NIA and CTN appreciate that 5 U.S.C. §§ 572(a) and 575(a) preclude the Commission from mandating the submission of disputes to arbitration absent consent of the parties to the disputes. Nonetheless, WCA, NIA and CTN urge the Commission to do here as it has done before and strongly urge parties to any dispute over the reasonableness of a Transition Plan to submit that dispute to arbitration or other method of alternative dispute resolution ("ADR"). As the Commission found when it strongly encouraged the use of ADR to resolve microwave relocation disputes:

This approach is consistent with the Commission's commitment to use alternative dispute resolution (ADR) techniques to expedite and improve our administrative process whenever feasible and consistent with our statutory mandate. Resolution of such disputes entirely by the Commission adjudication processes would be time consuming and costly to all parties. Therefore, we strongly encourage parties unable to voluntarily conclude a relocation agreement to employ ADR techniques!

Those same considerations apply here, and the Commission should similarly strongly encourage parties to a Transition Plan dispute to bring the matter to arbitration, rather than the Commission, for resolution.

⁶⁰ *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 8 FCC Rcd 6589, 6604 (1993). See also *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 9 FCC Rcd 7797, 7801 (1994).

V. LICENSING

When a Transition Plan is fully implemented and operations under the current bandplan cease, the Proponent and all affected licensees should jointly notify the Commission. The notice should specifically identify which licensees have transitioned to the new bandplan and the specific frequencies on which each is operating. In addition, for each station in the MBS the Proponent should advise the Commission of the relevant technical parameters (*i.e.* the station coordinates, for each antenna the make and model, horizontal and vertical pattern, EIRP in the direction of the main lobe, orientation, height of antenna center of radiation, transmitter output power and all line and combiner losses). Copies of that notice shall be provided to the designated contact representative of each party to the transition. The Commission can then issue each party a new license that specifies its new operating frequencies (and, in the case of the MBS, its technical parameters) under the bandplan.

VI. REIMBURSEMENT OF A PROPONENT'S EXPENSES

One potential weakness in the proposed transition rules is that, depending upon the spacing of markets, a single Proponent can be responsible for the costs of transitioning markets in which the Proponent may never provide a commercial service. This provides a perverse incentive for a licensee to delay service until someone else takes on the role of Proponent and funds the transition. WCA, NIA and CTN believe that the Commission can and should take steps to avoid imposing unreasonable expenses on “first movers” and minimize the potential for “free riders.”

To avoid “free riders” on the band-clearing efforts of others in connection with the establishment of PCS, the Commission adopted Sections 24.239 through 24.253 of its Rules, which mandate reimbursement of the party that pays to relocate a fixed microwave service link when others subsequently benefit.⁶¹ Those rules should serve as a model for rules to address the problem of “free riders” during the transition process. Specifically, whenever spectrum in the **LBS** or **UBS** is used to render commercial service (either directly or indirectly through a channel lessee), the party offering the commercial service should be required to reimburse its *pro rata* share of the cost of transitioning the facilities it uses and the cost of transitioning facilities associated with any overlapping TIA.

Although WCA, NIA and CTN believe that the PCS microwave relocation program serves as a useful model, they do not believe that a clearinghouse will be required to administer the program. There, the Commission elected to utilize a clearinghouse because the complexity of the relocation and reimbursement scheme would impose “a significant drain on

⁶¹ See, e.g., *Microwave Relocation First Report and Order* at 8829-31 (discussing “free rider” problem where beneficiaries of relocation do not pay relocation costs).

our administrative resources.”⁶² However, in subsequent, less-complex, relocations, the Commission has found that an administrator is unnecessary.⁶³ Particularly if the Commission strongly encourages parties to any reimbursement dispute to utilize alternative dispute resolution mechanisms before bringing the matter to the Commission, the proposed system should not impose significant burdens on the Commission’s staff.⁶⁴ However, should the Commission require a clearinghouse to facilitate the proposed reimbursement program, WCA is prepared to serve that function.

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“Amendment to the Commission’s Rules Regarding a Plan for Sharing the Costs of Microwave Relocation, 11 FCC Rcd. 1923, 1953 (1995). See also Amendment of Part 90 of the Commission’s Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, 12 FCC Rcd 19079, 19126 (1997) [“800 MHz Second Report and Order”] (“an administrator was necessary to administer the cost-sharing plan under the microwave relocation procedures because of the complexity of the plan.”).

⁶³ See 800 MHz Second Report and Order, 12 FCC Rcd at 19125-26.

⁶⁴ See *id.* at 19125.

ATTACHMENT 1 TO APPENDIX B

DEFAULT ASSIGNMENTS OF LOWER, MID AND UPPER BAND SEGMENTS

Channel Designation	Lower Frequency	Upper Frequency	Default Licensing
A1	2500.00	2505.50	
A2	2505.50	2511.00	Licensed to current A Group licensee(s)
A3	2511.00	2516.50	
B1	2516.50	2522.00	
B2	2522.00	2527.50	Licensed to current B Group licensee(s)
B3	2527.50	2533.00	
C1	2533.00	2538.50	
C2	2538.50	2544.00	Licensed to current C Group licensee(s)
c3	2544.00	2549.50	
D1	2549.50	2555.00	
D2	2555.00	2560.50	Licensed to current D Group licensee(s)
D3	2560.50	2566.00	
J Band	2566.00	2572.00	See Page 2
A4	2572.00	2578.00	Licensed to current A Group licensee(s)
64	2578.00	2584.00	Licensed to current B Group licensee(s)
c4	2584.00	2590.00	Licensed to current C Group licensee(s)
D4	2590.00	2596.00	Licensed to current D Group licensee(s)
E4	2596.00	2602.00	Licensed to current E Group licensee(s)
F4	2602.00	2608.00	Licensed to current F Group licensee(s)
G4	2608.00	2614.00	Licensed to current G Group licensee(s)
K Band	2614.00	2620.00	See Page 2
E1	2620.00	2625.50	
E2	2625.50	2631.00	Licensed to current E Group licensee(s)
E3	2631.00	2636.50	
F1	2636.50	2642.00	
F2	2642.00	2647.50	Licensed to current F Group licensee(s)
F3	2647.50	2653.00	
H1	2653.00	2658.50	Licensed to current H1 licensee
H2	2658.50	2664.00	Licensed to current H2 licensee
H3	2664.00	2669.50	Licensed to current H3 licensee
G1	2669.50	2680.50	
G2	2675.00	2680.50	Licensed to current G Group licensee(s)
G3	2680.50	2686.00	
I Band	2686.00	2690.00	See Page 3

DEFAULT LICENSING OF TRANSITION BANDS (J AND K BANDS)

J Channel	Start Frequency	Stop Frequency	Assigned to Licensee under New Bandplan of Channel
J1	2566.000	2566.500	A1
J2	2566.500	2567.000	A2
J3	2567.000	2567.500	A3
J4	2566.750	2568.000	B1
J5	2568.000	2568.500	B2
J6	2568.500	2569.000	B3
J7	2569.000	2569.500	C1
J8	2569.500	2570.000	C2
J9	2570.000	2570.500	C3
J10	2570.500	2571.000	D1
J11	2571.000	2571.500	D2
J12	2571.500	2572.000	D3
K1	2614.000	2614.500	E1
K2	2614.500	2615.000	E2
K3	2615.000	2615.500	E3
K4	2615.500	2616.000	F1
K5	2616.000	2616.500	F2
K6	2616.500	2617.000	F3
K7	2617.000	2617.500	H1
K8	2617.500	2618.000	H2
K9	2618.000	2618.500	H3
K10	2618.500	2619.000	G1
K11	2619.000	2619.500	G2
K12	2619.500	2620.000	G3

DEFAULT LICENSING OF I BAND

I Channel	Start Frequency	Stop Frequency	Assigned to Licensee under New Bandplan of Channel
I1	2686.000	2686.125	A1
I2	2686.125	2686.250	A2
I3	2686.250	2686.375	A3
I4	2686.375	2686.500	A4
I5	2686.500	2686.625	B1
I6	2686.625	2686.750	B2
I7	2686.750	2686.875	B3
I8	2686.875	2687.000	B4
I9	2687.000	2687.125	C1
I10	2687.125	2687.250	C2
I11	2687.250	2687.375	C3
I12	2687.375	2687.500	C4
I13	2687.500	2687.625	D1
I14	2687.625	2687.750	D2
I15	2687.750	2687.875	D3
I16	2687.875	2688.000	D4
I17	2688.000	2688.125	E1
I18	2688.125	2688.250	E2
I19	2688.250	2688.375	E3
I20	2688.375	2688.500	E4
I21	2688.500	2688.625	F1
I22	2688.625	2688.750	F2
I23	2688.750	2688.875	F3
I24	2688.875	2689.000	F4
I25	2689.000	2689.125	H1
I26	2689.125	2689.250	H2
I27	2689.250	2689.375	H3
I28	2689.375	2689.500	G1
I29	2689.500	2689.625	G2
I30	2689.625	2689.750	G3
I31	2689.750	2689.875	G4

DIGITIZATION

As discussed in the white paper and in Appendix B, WCA, NIA and CTN are in agreement that under appropriate circumstances, a licensee or a Proponent acting pursuant to Appendix B should be permitted, at its cost, to digitize the operations of an analog MDS or ITFS facility. However, due to the press of time WCA, NIA and CTN have not yet been able to finalize the appropriate minimum technical standards that should have to be satisfied in connection with such a digitization or appropriate procedures to govern such a digitization. WCA, NIA and CTN will continue to address these issues and plan to supplement their filing with a detailed Appendix C as soon as it is finalized.